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Ref: 8EPR-EP

June 3, 2005

Chris J. Wiant, Chair
Water Quality Control Commission
Colorado Department of Public Health and Environment
OED-OPPI-A5
4300 Cherry Creek Drive South
Denver, CO 80246-1530

Re: Section 303(d) Total Maximum Daily Load (TMDL) Waterbody List (Regulation #93)

Dear Mr. Wiant:

On July 26, 2004, EPA partially approved and partially disapproved Colorado's 2004 Section 303(d) waterbody list. In particular, EPA approved the State's decision to list the waters and pollutants as found in 2004 Section 303(d) List Water Quality-Limited Segments Requiring TMDLs, Regulation #93 (5 CCR 1002-93) ("Regulation #93"). EPA disapproved the State's decision not to list six waterbodies and not to list an additional pollutant for a water already listed by the State for other pollutants. EPA further identified these additional waters and pollutants with appropriate priority rankings for inclusion on the 2004 §303(d) list.

EPA provided public notice and solicited public comment on its identification of additional waters and pollutant for inclusion on Colorado's list. The comment period closed September 20, 2004. EPA has carefully reviewed the written comments received from the State and other commenters. A review of the comments and our response to those comments are included in Enclosure 1 to this letter.

Pursuant to the requirements of federal regulations at 40 CFR 130.7, I am hereby transmitting to you the list of waters and pollutants that, along with the waters and pollutants found in Regulation #93, will make up the State's year 2004 §303(d) list. Those waters and pollutants are identified in Table 1. Those waters and pollutants originally identified in our July 26, 2004 correspondence that have not been included on the list are identified in Table 2. A brief explanation for not adding those waters is included in the table and a more thorough rationale is included in Enclosure 2, "Revised Review of Colorado's 2004 Section 303(d) Waterbody List."

EPA has been in contact with the United States Fish and Wildlife Service (FWS) regarding whether and, if so, how EPA's approval of Colorado's year 2004 Section 303(d) list may affect the continued existence of any endangered or threatened species listed under the Endangered Species Act (ESA) or the designated critical habitat of any such species. EPA has not determined that today's approval may have such an effect. Therefore, EPA has decided to approve the list contingent upon the outcome of consultation with the FWS.

Table 1 **Waterbodies, Pollutants, and Priority Rankings to be added to Colorado's Section 303(d) Waterbody List.**

Waterbody	Pollutant(s)	Water Quality Standard Not Met	Priority Ranking
Red Mountain Creek (Red Mountain Creek from East Fork of Red Mountain Creek to Uncompahgre River) Segment COGUUN06b	copper, lead, zinc	aquatic life use	low
Bear Creek (Bear Creek from Evergreen Lake to Harriman Ditch) Segment COSPBE01	temperature	aquatic life use	low

Table 2 **Waters and Pollutants previously identified by EPA for addition to Colorado's Section 303(d) Waterbody List and reasons they are not being added.**

Waterbody	Pollutant(s)	Reasons to Exclude from §303(d) List*
West Fork of Clear Creek (West Fork of Clear Creek from Woods Creek to Clear Creek mainstem) Segment COSPCL05	zinc	Zinc water quality standard changed by State; zinc standards now being met.
Middle South Platte River (South Platte River from Big Dry Creek to Highway 60) Segment COSPMS01	dissolved oxygen	Dissolved oxygen water quality standard changed by State; DO standards now being met.
Blue River Tributaries (Camp Creek, Jones Gulch) Segment COUCBL06	pH	Excursions below pH standard are considered natural.
Blue River Tributaries (Keystone Gulch, Mozart Creek) Segment COUCBL08	pH	Excursions below pH standard are considered natural.
Dolores River (Dolores River below McPhee Reservoir to Bradfield Ranch Bridge) Segment COSJDO04	unknown	Variability in fish populations in response to flow regime.

***** See Enclosure 2 for more detailed reasons for excluding these waters from Colorado's list.

As mentioned in our July letter to you, it is current Agency policy that a state should address the need for a TMDL no later than thirteen years from the time a waterbody/pollutant combination is added to its list. As we have seen with other waters on the State's §303(d) list, the time may be ripe for TMDL development for these waters or there may first be the need for additional work regarding monitoring or re-evaluation of the appropriateness of the standards.

We acknowledge the State already is working in some manner in all of these watersheds. We look forward to working collaboratively with the State as it addresses these waters. If you have questions on any of the above information, feel free to give me a call at 303/312-6598 or call Bruce Zander of my staff at 303/312-6846.

Sincerely,

Original Signed by Max H. Dodson

Max H. Dodson,
Assistant Regional Administrator
Office of Ecosystems Protection and Remediation

Enclosures

cc: Acting Director, Colorado Water Quality Control Division

Enclosure 1

Responsiveness Summary to Public Comments on EPA's Partial Disapproval of Colorado's 2004 Section 303(d) Waterbody List

I. Introduction

Section 303(d) of the Clean Water Act (CWA) requires each state to identify waters for which existing point source pollution controls are insufficient for the affected waters to implement all applicable state water quality standards. States must also establish a priority ranking for waters, taking into account the severity of the pollution and the uses to be made of such waters, and develop total maximum daily loads (TMDLs) for these waters. A TMDL specifies the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and allocates pollutant loadings between point and nonpoint pollutant sources.

Under Section 303(d), EPA has the obligation to review and either approve or disapprove waterbody lists submitted by states. EPA reviewed Colorado's 2004 submission, which included a description of the data and information the State considered, its methodology for identifying waterbodies, and responses to public comment on the list, and the final list of waters that qualify for listing under Section 303(d). EPA's review of Colorado's §303(d) list is based on EPA's analysis of whether the State reasonably considered existing and readily available water quality-related data and information and reasonably identified waters required to be listed.

After review of the State's submittal, on July 26, 2004 EPA partially approved and partially disapproved Colorado's §303(d) list submittal for the year 2004 listing cycle. Specifically, EPA approved Colorado's listing of 117 waters, associated pollutants, and associated priority rankings. EPA disapproved Colorado's decision not to list six waterbodies and associated pollutants and one pollutant for a waterbody already listed by the State. Evidence of impairment for these waters and pollutants was submitted to the Commission during the State's §303(d) listing process. In its July 26, 2004 correspondence to the State, EPA identified the additional waterbodies and pollutants along with priority rankings for inclusion on the State's list. Also in the July correspondence, EPA identified the reason why it believed these waters/pollutants qualified for listing.

EPA sought public comment on its decision to include the additional waters and pollutants on the State's list. Solicitation for public review was made in a Federal Register Notice published on August 6, 2004. Comments were due to EPA no later than September 20, 2004.

EPA received comments from 38 entities including private citizens, governmental agencies, elected officials, environmental groups, and private consultants. This document contains the summaries of comments EPA received during the public comment period and EPA's responses to those comments.

II. List of Commenters

Benevento, Doug (Colorado Department of Public Health and Environment)
Ament, Don (Colorado Department of Agriculture)
Saletta, Philip (Dolores Water Conservancy District)
George, Russell (Colorado Department of Natural Resources)
Romig, Bryce (Climax Molybdenum Company)
Schulte, Gerald (Evergreen Metropolitan District)
Allard, Senator Wayne
Todino, Bill (Evergreen Metropolitan District)
Wiant, Chris J. (Colorado Water Quality Control Commission)
Water Resource Colorado General Assembly Review Committee
Weaver, Robert (Hydrosphere Resource Consultants) and Harris, Sherman (Arnold & Porter LLP) for Keystone Resort
Green, Mike (Citizen; Genesee Wastewater Plant)
Clayshulte, Russell (Bear Creek Watershed Association)
Mlodzik, Roger (Water Commissioner District 9 and 8)
Biggs, Barbara (Metro Wastewater Reclamation District)
Garrod, J. Kelly (West Jefferson County Metropolitan District)
Carroll, Don G. (White River National Forest; USFS)
Burkholder, Steve (Mayor, City of Lakewood)
Quilling, Larry
Trammell, John
Haller, Tim
Huiting, Randy
Kassen, Melinda (Trout Unlimited)
Goldblatt, Mike
Gates, Chas. C. (Cody Resources)
Brown, Kenneth (Trout Unlimited)
Domingue, Richard
McClatchy, Ken
Haile, L. John
Reynolds, Rich
Petitioners from the Colorado Fishing Industry
Teaff, Kevin
Waters, Phil
Lance, Sharon (Trout Unlimited)
Greenstreet, Alice
Yaeger, Frank "Dusty"
Edwards, Glen (Colorado School of Mines)
Ledyard, Henry B.

III. Comments and Responses

A. Responses to General Comments

Comment: EPA's decisions are based on a selective subset of the overall evidence.
Response: EPA was careful to review the written as well as the oral testimony provided to the Commission. In addition, EPA took care to evaluate existing and readily available data and information pertinent to the §303(d) listing process.

Comment: EPA ignored the role of the Commission to reach an appropriate decision regarding placing waters on the State's §303(d) list. The Commission had to make decisions in the face of conflicting evidence and interpretations. As a matter of law, it is improper for EPA to substitute its judgment for the Commission's judgment and require inclusion of these waters on the State's §303(d) list.
Response: EPA has a statutory responsibility to review a state's decision regarding the placement of waters identified under Section 303(d). In disagreeing with the Commission, the Agency was not ignoring the Commission's role, but was fulfilling its statutory role. EPA's responsibility under Section 303(d) is to ensure all applicable waters are included on a state's list. There are times when there will be a disagreement between a state and EPA regarding the interpretation of data and information. There are several examples where this disagreement has occurred between EPA and other states regarding §303(d) lists. In those instances, EPA has carried out its statutory responsibilities and established lists in those states.

Comment: There is no practical difference regarding what actions will be taken in the next few years whether these waters are or are not included on the §303(d) list.
Response: EPA may agree, but the Clean Water Act requires that impaired and threatened waters be included on the §303(d) list; this is not a basis to exclude these waters from the §303(d) list.

Comment: EPA has failed to recognize that Colorado is experiencing one of its most severe droughts in history, a condition that has caused concomitant impacts on river flows and temperature.
Response: In evaluating the data and information for Colorado's §303(d) listing process, EPA deliberately considered how to evaluate data and information associated with drought conditions when making its final decisions.

Comment: Prior to proceeding with a TMDL, more information is needed regarding whether a correctable adverse impact is occurring, the cause of any such

impact and/or the attainability/appropriateness of current water quality standards for these segments.

Response: EPA agrees that in some instances, the State may need more information on the correctability of impacts, the causes of the impacts, and the appropriateness of current water quality standards. However, this need for such information is not a reason to exclude an impaired water from the State's §303(d) list. There is a difference between listing a waterbody and actually developing a TMDL for that waterbody. Indeed, for the majority of waters on state §303(d) lists, the first step in the process toward solving the water quality problem is to make sure the standards are appropriate and to collect any needed data regarding the sources and causes. The requirement still remains that impaired waters are to be identified on a state's §303(d) list even if there is not a full understanding of the impairment. Because there is often the need for further investigation prior to developing a TMDL for a listed water, EPA has established a policy that allows a state about 13 years to collect the needed information and establish any needed TMDLs.

Comment: There is no practical difference between the State's approach of listing the waters on the Monitoring and Evaluation List and EPA listing the waters on the State's list as "low" priority.

Response: EPA is obligated under law to ensure the State's §303(d) list includes all waters that qualify for listing, regardless of prioritization or the State's action on a monitoring list. EPA believes waters on the §303(d) list, even at low priority, will be given a greater focus from stakeholders and perhaps the State than waters on the M&E list. EPA assigned a low priority to the waters it added to the list to 1) provide the State maximum flexibility to queue them up with other State priorities as well as 2) perform needed pre-TMDL work prior to proceeding with TMDL development (e.g., reconsider assigned standards to the waters, collect more field information, perform use attainability analyses).

Comment: In some cases, EPA used data and information that were not presented to the Commission for its deliberations. EPA should be restricted to the same body of data and information used by the Commission.

Response: EPA is limited only by the Agency's regulations requiring that the listing decisions be based on existing and readily available data and information. EPA limited itself to data and information that existed and were readily available prior to the State's cutoff date for prehearing statements. There was some information (e.g., daily flow data in the Dolores River) that may not have been presented to the Commission, but EPA needed to refer to these data, which existed and was readily available prior to the State's "cut-off date" for data, in response to the Commission's reliance on flow information in its final decision to exclude the River from the list.

B. Responses to Waterbody-Specific Comments

Red Mountain Creek

Comment: EPA has no authority to unilaterally establish a new "expected condition" for Red Mountain Creek in the process of reviewing Colorado's Section 303(d) listing decisions.

Response: EPA made its decision to list Red Mountain Creek based on the current EPA-approved water quality standards of the State and did not establish an "expected condition" for the Creek. Once the State establishes an "expected condition" for the Creek, then that "expected condition" can be used as a basis for determining the impairment status of Red Mountain Creek by both the State and EPA. Apart from its analysis for listing Red Mountain Creek, EPA surmised how the current quality would compare to an "expected condition" if one were to be established. EPA also noted that, even if an "expected condition" were established for Red Mountain Creek, the Creek would not likely meet such an "expected condition" or, full potential, with respect to aquatic life.

Comment: Comparing the upstream segment 6a with the downstream segment 6b is irrelevant and misleading.

Response: EPA made the comparison between the relatively healthy segment 6a with the downstream segment 6b to demonstrate the degree of poor water quality and poor biology found in 6b. This comparison is relevant to determining whether the aquatic life use classification of segment 6b is being met.

Comment: EPA included Red Mountain Creek on the State's list because improvements are feasible and the current condition does not reflect the best attainable condition. Listing a waterbody on the premise that it could be improved sets a broad and inappropriate precedent.

Response: EPA included Red Mountain Creek on the State's list because it is not meeting established water quality standards. In particular, EPA concluded the Creek is not meeting its aquatic life use classification. While the remedial activities occurring in the watershed are important regarding future condition of the Creek and, perhaps, establishing an "expected condition" at some future time for the waterbody, they are not the bases for listing the water. Rather, listing is based on the water's current water quality and the current water quality standards.

Comment: The information cited by EPA in its July 26, 2004 document shows that the 1992 consent decree objectives for zinc (and the current zinc concentrations in segment 6b) are at levels that would still be an order of magnitude higher than what EPA identifies as the acutely toxic threshold criteria for zinc.

EPA has presented no evidence demonstrating that any additional remediation will be substantial enough to drastically reduce zinc levels and result in a significant improvement in aquatic life.

Response: EPA's decision to list Red Mountain Creek is based on the very toxicity mentioned in this comment. EPA concluded that the toxic levels of metals prevent this waterbody from attaining its current aquatic life use classification. EPA also acknowledged that the current use classification is being re-visited by the State and is subject to future modifications. A demonstration that the current remediation efforts are adequate to meet the current use classification is not needed to justify the listing of Red Mountain Creek. EPA indicated that the current remediation efforts will likely result in some level of improvement in the Creek. As such, even if the State had established an "expected condition" for Red Mountain Creek, it would likely be something better that the current conditions and the water would still qualify for listing for failure to meet that "expected condition." Since the "expected condition" has yet to be defined by the State for this Creek, EPA is obliged to make its impairment determination based on current State standards for the Creek, which includes the cold water aquatic life designation. EPA used the current chemical and biological data applicable to the creek to demonstrate how far the Creek is from fully supporting its cold water aquatic life classification.

Comment: Red Mountain Creek should be excluded from the State's list since EPA's guidance allows waters to be excluded where it is shown that required pollution controls are expected to fully implement water quality standards.

Response: EPA regulations allow a state to exclude a water from its §303(d) list when it can be shown that required pollution controls will implement standards for that water (See 40 CFR Part 130.7(1)(iii)) Although EPA concluded the current and future remediation activities in the Red Mountain Creek watershed will result in improved conditions, it also concluded that those activities are inadequate to fully implement the State's aquatic life use standard for the Creek. There has been no analysis showing that the activities will result in full compliance with the standards.

West Fork of Clear Creek

Comment: The Commission has established a revised standard for acute zinc concentrations to protect aquatic life in the West Fork. The new standard becomes effective October 30, 2004. Further, the creek is in attainment of the new standard. As such, EPA should exclude the waterbody from the list based on the new standard.

Response: Listing decisions are based on the current EPA-approved water quality standards. Since the acute standard for the West Fork has been approved by EPA since EPA's July 2004 decision, and because the standard is

currently being attained, the Agency agrees that this waterbody should not be included on the State's list.

Comment: EPA should list the West Fork for zinc because the new, relaxed zinc standard is not protective of the aquatic species known to be present in the stream.

Response: Section 303(d) listing decisions are based on water quality standards approved or promulgated by EPA. These are the "applicable" standards for purposes of the Clean Water Act. As such, EPA has made its final decision regarding the listing of the West Fork based on the current, EPA-approved standards for this water, including the new zinc standard. Since the revised zinc standard is being met, the West Fork will not be listed for zinc. [Note: This waterbody is already on the State's §303(d) list for impairments due to exceedence of the copper standard. EPA approved the listing of the West Fork for copper in its July 26, 2004 correspondence to the Commission.]

Middle South Platte River

Comment: The Commission has established a revised standard for dissolved oxygen concentrations to protect aquatic life in this segment of the South Platte. The new standard becomes effective October 30, 2004. Further, the river is in attainment of the new standard. As such, EPA should exclude the waterbody from the list based on the new standard.

Response: Listing decisions are based on the current EPA-approved water quality standards. Since the acute standard for this segment of the South Platte has been approved by EPA since EPA's July 26, 2004 decision, and the standard is currently being attained, the Middle South Platte River will not be listed for dissolved oxygen.

Blue River Tributaries

Comment: The seasonally low pH levels in the Blue River tributaries are not attributed to man-induced pollution or discharges of pollutants. As such, these waters should not be included on the State's §303(d) list.

Response: EPA agrees and has not included it on the list.

Comment: The pH data used by EPA does not adequately represent the conditions in the Blue River segments at issue. Further, there is no evidence of biological impairment or pollutant(s) contributing to impairment.

Response: The pH data used by EPA does provide some level of understanding of the subject waters. The pH standards of the State are implemented and assessed based on instantaneous samples and, as such, single samples can be used in the analysis of a waterbody. pH excursions above or below the State standards, in itself, constitutes the presence of a pollutant.

Excursions from numeric standards are an adequate basis to list a waterbody, without the need to have a demonstration of corresponding biological impairment.

Bear Creek

Comment: A waterbody should be excluded from the §303(d) list if the cause of the biological impairment is unknown as indicated in EPA's year 2002 listing guidance (November 19, 2001).

Response: The particular sentence in EPA's year 2002 guidance allowing a state to exclude biologically-impaired waters from its §303(d) list when the cause of the impairment is unknown was an inadvertent error and was removed in a March 26, 2002 memorandum updating the guidance from EPA's Office of Wetlands, Oceans and Watersheds. In that update, it was clarified that States should list all waters where impairments have been identified, even if the cause was unknown. According to the 2002 guidance, impaired waters could be excluded only if it could be shown that a pollutant did not cause the impairment or it qualified for listing under category 4A or 4B[1]. This approach was reiterated in EPA's year 2004 §303(d) listing guidance.

Comment: Both the Commission and EPA agree that the next practical step to address issues in Bear Creek is further monitoring. This will occur whether the waterbody is included on the State's list, or not.

Response: Regardless of what measures are taken in response to impairment, the Clean Water Act requires that impaired or threatened waters be included on a state's §303(d) list, consistent with EPA regulations.

Comment: The ammonia TMDL issue in Bear Creek is not a valid basis to require inclusion of this segment on the State's list.

Response: EPA agrees. Since the Agency has already approved an ammonia TMDL for this segment, it would be inappropriate to list the water on the basis of any impairments associated with the TMDL at this time.

Comment: There is no record of water quality problems or long term biological impairments associated with this segment of Bear Creek. Listing a stream

[1] In EPA's §303(d) listing guidance, a state is asked to classify its waters in certain categories. Category 5 are waters that are impaired or threatened and need a TMDL. Category 5 is made up of waters that are included on a state's §303(d) list. Category 4 includes waters that are impaired or threatened, but do not need a TMDL. Category 4A includes waters where all necessary TMDLs have already been approved or established by EPA. Category 4B includes waters where it has been documented that other required pollutant controls will result in attainment of water quality standards in a reasonable period of time. Category 4C includes waters where it has been shown that the impairment or threat is not caused by a pollutant.

without credible evidence and based on non-representative conditions is counter-productive to a holistic watershed management effort.

Response: EPA has reviewed the data and information from all parties and agrees with the conclusions of the Water Quality Control Division and the Colorado Division of Wildlife (CDOW) that water quality problems have been noted in Bear Creek and that the biological impairments are significant enough to warrant listing this segment of Bear Creek. EPA believes that this assessment from the State is based on credible data and includes flow regimes and conditions apart from the time of drought in Bear Creek. Listing of a waterbody provides focus and visibility to the restoration needs of that waterbody and often results in leveraging of resources for implementation of needed improvements. As such, EPA believes listing a water is not counter-productive and does support a holistic view on watershed restoration.

Comment: EPA should consider the future construction of a storage reservoir to be built by Genesee Water and Sanitation District and the flow benefits that will derive from that reservoir in its listing decision.

Response: EPA is obliged to make listing decisions on current conditions of waterbodies and projections of water quality for threatened waters. The Agency cannot consider the uncertain effects of future actions that may or may not change the current impaired condition of the waterbody.

Comment: EPA ignored all data taken on Bear Creek before and after the drought episode of 2002, relying solely on a single ammonia data point and temperature data taken in July of 2002 in making its listing decision.

Response: EPA excluded data during the drought episode and relied on the various temperature and biological data that represented conditions in Bear Creek before and after drought conditions. For example, EPA used the biological data for Bear Creek that showed conditions before the 2002 drought (declining fish population data and fish kills observed by CDOW) and after the drought (impaired fish population data).

Comment: The issue is a policy choice of how to proceed when there is biological evidence of an impact to aquatic life uses but the cause of the impact has not been determined.

Response: According to EPA year 2004 §303(d) guidance, waters should be listed if biological evidence demonstrates an impairment, unless it is known that no pollutant causes the impairment. In the case of Bear Creek, there is biological evidence of an impairment, but there is also evidence that a pollutant or pollutants likely cause the biological impairment.

Comment: In either event the next step with respect to Bear Creek will be further monitoring to determine the potential role of ammonia and/or temperature in impacting these waters during non-drought conditions.

Response: The State is required to list Bear Creek because the waterbody is impaired because of pollutants. Listing the water will help ensure that adequate monitoring is conducted to determine the role of pollutants and that an appropriate TMDL is developed.

Comment: EPA did not refer to any non-drought temperature conditions for Bear Creek in its decision letter.

Response: EPA did not refer directly to actual non-drought temperature data in its letter. However, EPA noted that the testimony provided to the Commission offered such data and those data were reviewed by EPA and used as part of the basis for EPA's listing of this water. For example, data provided by Trout Unlimited in its prehearing statement as well as data provided by Evergreen Metropolitan District in its prehearing statement show temperature conditions above 20°C prior to and after the drought-flow year of 2002.

Comment: It is not reasonable that full aquatic populations could be returned in a single year following drought conditions. EPA ignored all pre-drought data and based its decision on one year following the drought.

Response: The Division of Wildlife and the Water Quality Control Division both provided testimony to the Commission that rebound of a fishery after a drought condition is possible and, indeed, did occur in all but the upper part of the Bear Creek reach. EPA evaluated the trend of biological health during pre-drought conditions in Bear Creek as well as the post-drought conditions. EPA did not ignore pre-drought data. Rather, EPA considered the diminishing biological health of Bear Creek before the drought (declining fish population data and fish kills observed by CDOW) and after the drought (impaired fish population data) to support its conclusion that Bear Creek is impaired. Finally, although EPA made reference to the highest observed temperature values in its July 2004 decision letter, data provided by Trout Unlimited for the year prior to the drought and data provided by Evergreen Metropolitan District for years preceding and following the drought all showed high (i.e., $> 20^0$C) temperature values in Bear Creek.

<u>Dolores River</u>

Comment: EPA has not demonstrated that diminished aquatic life levels in the Dolores River below McPhee Reservoir are caused by factors other than flow.

Response: EPA has considered the correlation between flow regime and diminished aquatic life in the Dolores River and has concluded that there is a strong connection between flow and fishery population. As such, it is most appropriate not to include the Dolores River on the §303(d) list.

Comment: The record is full of data showing that, in the summer, temperatures exceed levels lethal to trout, an annual algae bloom forms below the dam, and sediment deposition is heavy enough to limit insect growth and survival of trout eggs on the river bottom.

Response: Although data and information were presented to the Commission regarding certain pollutants present in the Dolores River, EPA finds that the effects of flow have a direct and convincing effect on the fishery. Outside of the effects which occurred during drought flows in 2002 and 2003, the degree of impact on the fishery due to pollutants (including temperature) has not been shown to be direct or convincing. Further, much of the information was anecdotal with little or no data quantifying such pollutants as nutrients and sediment.

Comment: It may be impossible to protect any tailwater fisheries such as that found below McPhee Reservoir if problems associated with pollutants in those fisheries are ignored and effects of flow on the aquatic community define the "expected condition" for the waterbody.

Response: Although EPA believes the effects of flow have a direct and convincing effect on the Dolores River fish population, those effects and any other effects can be mitigated by restoration work now being implemented in and planned for the Dolores River. For example, reducing channel width and increasing pool habitat mitigate the effects of low flow as experienced at times in the Dolores. As such, the biological "expected condition" of such a tailwater should be dependent upon the level of mitigation that could reasonably be implemented in such a waterbody. The approach of addressing the effects of the flow problem through habitat mitigation can be an effective way of protecting tailwater fisheries.

Comment: EPA is using the §303(d) listing process to circumvent the State's power to appropriate instream flows for fish protection. EPA and others will use the listing process to require more flows in the Dolores, regardless of the length of the drought, for the benefit of the fishery. Listing of the Dolores River could potentially impair the exercise of water rights contrary to state and federal law.

Response: In its July 2004 decision to list the Dolores River, EPA made it clear that it supported the current agreements for flow management from McPhee Reservoir. Although EPA now is not adding this waterbody to the §303(d) list, EPA never intended to use the §303(d) process to circumvent the State's authority in matters of water appropriation. In its July 2004 letter, EPA encouraged working within the current water appropriation and management provisions established for the Dolores River while seeking physical habitat restoration techniques that mitigate possible effects of low flow and do not rely on changes to flow management.

Comment: Demanding that the Dolores be listed based upon impacts directly associated with the flow regime can only result in a Region 8 attempt to demand the release of flows on a basis outside of the normal release patterns.

Response: EPA believes impacts that might occur on the Dolores River from flow can be mitigated through physical habitat restoration in the river and do not call for a change in release patterns. This type of restoration work has already started in the Dolores River below McPhee Reservoir.

Comment: Listing the Dolores River will inhibit further study and restoration of the river.

Response: The Clean Water Act intends the TMDL process to be a catalyst for study and restoration of impaired waters. Listing a waterbody on a state's §303(d) list acknowledges that further study may be needed to determine the impairing effect of pollutants and to develop a plan of restoration. As such, many stakeholder groups have used the visibility and focus that comes with listing a waterbody on a §303(d) list to leverage resources to promote a collaborative approach in solving pollutant problems.

Comment: The State has not established an "expected condition" for the Dolores River, so there is no gauge to determine the health of the river.

Response: The State has not formally established an "expected condition" for the Dolores River. In the absence of such a determination, listing decisions are to be made on the basis of the EPA-approved water quality standards for the waterbody. Listing decisions are based on evaluating the chemical, biological, and physical health of the water using the numeric, narrative, antidegradation, and use classification elements of the State standards. In the case of the Dolores River, EPA made its decision regarding the fishery health of the river based on these standards and not the, yet undefined, "expected condition" for the river.

Enclosure 2

REVISED

Review of Colorado's 2004 Section 303(d) Waterbody List

Attachment to letter from Max H. Dodson, Assistant Regional Administrator,
Office of Ecosystems Protection and Remediation, US EPA, Region VIII
to Chris J. Wiant, Chair Water Quality Control Commission

Transmittal of Original Year 2004 §303(d) List Letter from State: March 17, 2004
EPA's Partial Approval/Partial Disapproval of State's List: July 26, 2004

I. Purpose

The purpose of this review document is to describe the rationale for EPA's final action on Colorado's 2004 Section 303(d) waterbody list as submitted on March 17, 2004 ("submittal"). EPA's final action addresses its July 2004 partial disapproval of the State's list. In July 2004, the Agency approved all the waters the State had included on its list, but also disapproved the list for

certain waters that had been excluded. EPA sought public comment on its action of partially disapproving the State's list and its proposal to add waters to the list. In response to those comments, EPA has now made a final decision regarding those waters which it proposed to add to the State's list.

Section G. below describes EPA's rationale for adding certain waters to the State's list and Section H. describes EPA's rationale for not listing waters it had originally proposed for listing in its July 2004 action.

The following sections identify those key elements to be included in the list submittal based on the Clean Water Act ("Act") and EPA regulations (See 40 C.F.R. 130.7). EPA reviewed the methodology used by the State in developing the §303(d) list and the State's description of the data and information it considered. EPA's review of Colorado's §303(d) list is based on EPA's analysis of whether the State reasonably considered existing and readily available water quality-related data and information and reasonably identified waters required to be listed.

EPA has concluded that the State developed its Section 303(d) list in partial compliance with Section 303(d) of the Act and 40 C.F.R. Part 130.7. Because Colorado's submission does not include all waters that meet Section 303(d) listing requirements, EPA is partially approving and partially disapproving Colorado's list submission and adding the additional waters, pollutants, and corresponding priorities to the final 2004 list. In its review of whether the State reasonably considered existing and readily available water quality-related data and information to identify listed waters, EPA relied upon, in part, the prehearing, rebuttal, and supplemental statements as well as testimony provided to the Water Quality Control Commission ("Commission") as part of the Section 303(d) list hearing conducted by the Commission. Further, the Agency carefully reviewed the comments it received after a solicitation for public comment on its proposal to add waters to the State's list. A more extensive list of references EPA relied upon in its review is included in the last section of this document.

II. Statutory and Regulatory Background

Section 303(d)(1) of the Act directs States to identify those waters within their jurisdiction for which effluent limitations required by Section 301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standard, and to establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters. The Section 303(d) listing requirement applies to waters impaired by point and/or nonpoint sources, pursuant to EPA's long-standing interpretation of Section 303(d).

EPA regulations provide that States do not need to list waters where the following controls are adequate to implement applicable standards: (1) technology-based effluent limitations required by the Act, (2) more stringent effluent limitations required by State or local authority, and (3) other pollution control requirements required by State, local, or federal authority. (See 40 C.F.R. 130.7(b)(1).)

In developing Section 303(d) lists, States are required to assemble and evaluate all existing and readily available water quality-related data and information, including, at a minimum, consideration of existing and readily available data and information about the following categories of waters: (1) waters identified as partially meeting or not meeting designated uses, or as threatened, in the State's most recent Section 305(b) report; (2) waters for which dilution calculations or predictive modeling indicate nonattainment of applicable standards; (3) waters for which water quality problems have been reported by governmental agencies, members of the public, or academic institutions; and (4) waters identified as impaired or threatened in any Section 319 nonpoint assessment submitted to EPA. (See 40 C.F.R. 130.7(b)(5).) In addition to these minimum categories, States are required to consider any other data and information that are existing and readily available. EPA's 1991 Guidance for Water Quality-Based Decisions describes categories of water quality-related data and information that may be existing and readily available. (See Guidance for Water Quality-Based Decisions: The TMDL Process, EPA Office of Water, 1991, Appendix C) ("EPA's 1991 Guidance"). In addition, EPA's guidance on submittal of reports pursuant to Section 303(d) identified categories of information that may constitute existing and readily available data and information (See Guidance for 2004 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act, TMDL -01-03 - July 21, 2003)("EPA 2004 Listing Guidance"). While States are required to evaluate all existing and readily available water quality-related data and information, States may decide to rely or not rely on particular data or information in determining whether to list particular waters.

In addition to the EPA 2004 Listing Guidance, EPA has published guidance documents that provide approaches for assessing water quality data and information. The documents include Guidelines for Preparation of the Comprehensive State Water Quality Assessments (305(b) Reports) and Electronic Updates: Supplement, Office of Water, EPA-841-B-97-002B, September 1997 ("EPA 305(b) Guidance") and Consolidated Assessment and Listing Methodology, Office of Wetlands, Oceans, and Watersheds, July 2002 ("EPA's CALM Guidance"). The guidance in these documents was also used by EPA in evaluating the manner in which Colorado assessed its data to determine impairment status of waterbodies.

In addition to requiring States to assemble and evaluate all existing and readily available water quality-related data and information, EPA regulations at 40 C.F.R. 130.7(b)(6) require States to include as part of their submissions to EPA documentation to support decisions to rely or not rely on particular data and information and decisions to list or not list waters. Such documentation needs to include, at a minimum, the following information: (1) a description of the methodology used to develop the list; (2) a description of the data and information used to identify waters; and (3) any other reasonable information requested by the Region.

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III. Review of Colorado's Submission

A. *Description of the methodology used to develop the list.* (§130.7(b)(6)(I))

A description of the listing process, the criteria for listing, and the criteria for determination of TMDL priority is found in the State's "Section 303(d) Listing Methodology - 2004 Listing Cycle" (September 9, 2003)("Listing Methodology"). The Listing Methodology was developed through a public process and finalized as a policy at a Water Quality Control Commission administrative action hearing on September 9, 2003. The provisions in Section III. of the Listing Methodology set forth criteria that generally were used to make decisions regarding which waters to include on the 2004 Section 303(d) List (Regulation #93) and the 2004 monitoring and evaluation list ("M&E List"; Regulation #94).

With the exception of those waters discussed in section G. below, Colorado properly listed waters with nonpoint sources causing or expected to cause impairment, consistent with Section 303(d) and EPA guidance. Section 303(d) lists are to include all water quality-limited segments ("WQLSs") still needing TMDLs, regardless of whether the source of the impairment is a point and/or nonpoint source. EPA's long-standing interpretation is that Section 303(d) applies to waters impacted by point and/or nonpoint sources. This interpretation has been described in EPA guidance in a 1997 memorandum clarifying certain requirements for 1998 Section 303(d) lists. (See EPA's 1991 Guidance and the August 27, 1997, EPA guidance listed below.) In addition, this interpretation of Section 303(d) is described in detail in a May 23, 1997, memorandum from Geoffrey Grubbs, Director of the Assessment and Watershed Protection Division, EPA Office of Water, to the FACA Workgroup on Section 303(d) Listing Criteria. (See May 23, 1997 and August 8, 1997 references listed below.)

Except for those reasons discussed below in Section G. Basis for Decision to Add Waters to Colorado's 2004 §303(d) List , EPA finds the methodology reasonable and sufficient for purposes of Section 303(d).

B. *Description of the data and information used to identify waters, including a description of the data and information used by the state as required by section 130.7(b)(5).* (§130.7(b)(6)(ii))

Colorado provides a description of the data and information used to develop its list in the Statement of Basis, Specific Statutory Authority and Purpose; March 2004 Rulemaking section of Regulation #93. Information and databases consulted included the State water quality standards, discharge permit system files, and STORET (EPA's national water quality database). Further, the State actively solicited various entities for data and information that could be used in the list development process. The Colorado Water Quality Control Division ("Division") also continues to independently collect and analyze new data on a rotating basin basis and utilizes such data in making listing determinations.

The data and information requirements mentioned in 40 C.F.R. 130.7(b)(5) include, but are not limited to, all the existing and readily available data and information about the following four categories of waters:

. *Waters identified by the State in its most recent section 305(b) report as "partially meeting" or "not meeting" designated uses or as "threatened."* (§130.7(b)(5)(I))

The waters included in the most recent Colorado §305(b) report (See April 2004 document listed below) that were identified as "not supporting," "partially supporting," or "threatened" were included on the §303(d) list if the supporting data and information conformed with the credible evidence criteria given in the §303(d) methodology (See Appendix C-1 of submittal). The State's 2004 §303(d) list and the list of waters in the 2004 §305(b) report identified as "not supporting," "partially supporting," or "threatened" are identical.

. *Waters for which dilution calculations or predictive models indicate nonattainment of applicable water quality standards*. (§130.7(b)(5)(ii))

The State also listed waters where the results of dilution calculations or predictive models indicated the water was threatened or impaired. One example of this is the South Platte River segment through Denver (COSPUS14) which was included on the list, in part, because mathematical modeling of nitrate concentrations demonstrated a concern regarding maintaining water quality numeric standards for nitrate.

. *Waters for which water quality problems have been reported by local, state, or federal agencies; members of the public; or academic institutions*. (§130.7(b)(5)(iii))

The State actively solicited various entities for data and information that could be used in the list development process. The State accepted credible data and information that were submitted in accordance with the listing process schedule, whether submitted by the EPA or any other interested party.

In addition, the State used biological assessments from the Colorado Division of Wildlife as a basis for listing waters. This includes fish population data, trend data, and information on Species of Critical Concern including native fish species.

The State also relied upon watershed assessment results from US Forest Service hydrologists to list waters. Information from the USFS included physical, chemical, and biological data and information.

. *Waters identified by the State as impaired or threatened in a nonpoint assessment submitted to EPA under section 319 of the CWA or in any updates of the assessment*. (§130.7(b)(5)(iv))

The State evaluated the nonpoint source ("NPS") data and information that had been obtained through its historical NPS assessments. If the data or information met the State's §303(d) credible evidence criteria defined in its Listing Methodology, then the data or information was considered by the State during the development of the §303(d) list. Further, there is general consistency between the §319 NPS projects in the State and the waterbodies on the 2004 §303(d) list.

EPA has reviewed Colorado's description of the water quality-related data and information it considered for identifying waters on the §303(d) list. EPA concludes that the State properly assembled and, except for those reasons discussed below in Section G. Basis for Decision to Add Waters to Colorado's 2004 §303(d) List, evaluated all existing and readily available data and information, including data and information relating to the categories of waters specified in 40 C.F.R. 130.7(b)(5).

C. *A rationale for any decision to not use any existing and readily available data and information for any one of the categories of waters as described in §130.7(b)(5).* (§130.7(b)(6)(iii))

For purposes of developing a technically sound waterbody list, the State developed credible evidence criteria for data and information used in the 2004 listing process as described in its Listing Methodology. The credible evidence criteria included both monitored as well as evaluated data and information. An example of monitored data being used as a basis for listing is Coal Creek (segment COGUUG11), listed for metals impairment as evidenced by numeric ambient water quality data. An example of evaluated data being used as a basis for listing is Trout Creek and tributaries (segment COSPUS03), listed for impairment due to sediment based on qualitative observational data.

EPA reviewed the State's criteria developed for the 2004 listing process, and determined that the rationales for not using certain existing and readily available water quality-related data and information were reasonable except for those situations discussed in Section G. Basis for Decision to Add Waters to Colorado's 2004 §303(d) List below. The State considered the age of the data, quantity of the data, evidence of quality control on the data, and the qualifications of personnel that collected biological or physical data on waterbodies as factors in determining whether particular data and information were sufficiently reliable to use as a basis for listing waters. Consideration of these factors in evaluating water quality-related data and information is consistent with EPA's 305(b) Guidance and EPA's 2004 Listing Guidance, and EPA believes these factors are similarly appropriate for Colorado to consider in evaluating information to determine whether waters should be included on the State's Section 303(d) list. Unless data or information existed for a waterbody that met these criteria, the data and information were generally not used and the waterbody was not listed on the §303(d) list. Colorado developed its credible evidence criteria in the §303(d) Listing Methodology through a state Task Force consisting of representatives from a wide range of stakeholder groups.

EPA notes that for many of those waters that do not have data or information that meet the credible evidence criteria, the State has indicated its intent to conduct an aggressive monitoring program to collect reliable data to use as a basis for determining the quality of these waters. The State intends to add or remove waters from subsequent §303(d) lists as warranted by results of its monitoring efforts within 10 years after a water is first added to the State's M&E List. Although a state is not required by the Clean Water Act to develop such a monitoring list, EPA applauds Colorado's commitment to identifying and assessing an increasing number of waters for purposes of §303(d) listing.

EPA has reviewed the State's rationale for not using certain data and information and has found, except for those reasons discussed below in Section G. Basis for Decision to Add Waters to Colorado's 2004 §303(d) List, such rationale reasonable and sufficient for purposes of Section 303(d).

D. *Any other reasonable information requested by Regional Administrator.* (§130.7(b)(6)(iv)

Except for those situations mentioned in Section G. Basis for Decision to Add Waters to Colorado's 2004 §303(d) List below, EPA concludes that the State has provided good cause for removing previously-listed waters from its Section 303(d) list and for excluding other waters. Since EPA regulations require only those WQLSs still requiring TMDLs to be listed, where certain other controls are not sufficient to attain water quality standards, waters for which TMDLs have been developed and approved need not be included on the Section 303(d) list. Waters for which the State has information showing that applicable standards are being met also are not required to be listed.

E. *Prioritization of waters on the list taking into account the severity of the pollution and the uses to be made of such waters; the prioritization shall specifically include the identification of waters targeted for TMDL development in the next two years*. (§130.7(b)(4))

EPA regulations interpret the requirement in Section 303(d)(1)(A) of the Clean Water Act that States establish a priority ranking for listed waters. The regulations at 40 C.F.R. 130.7(b)(4) require States to prioritize waters on their Section 303(d) lists for TMDL development, and also to identify those WQLSs targeted for TMDL development in the next two years. In prioritizing and targeting waters, States must, at a minimum, take into account the severity of the pollution and the uses to be made of such waters. (See Section 303(d)(1)(A).) As long as these factors are taken into account, the Act provides that it is the States that establish priorities rather than EPA. States may consider other factors relevant to prioritizing waters for TMDL development, including immediate programmatic needs, vulnerability of particular waters as aquatic habitats, recreational, economic, and aesthetic importance of particular waters, degree of public interest and support, and state or national policies and priorities. (See 57 Fed. Reg. at 33040, 33045 (July 24, 1992), and EPA's April 1991 Guidance listed below.)

The State provided a discussion regarding its prioritization method starting in Section IV of the 2004 Listing Methodology. The method resulted in assigning a "High," "Medium," or

"Low" priority to each of the waters on the list. The prioritization method included consideration of primary factors such as the severity of the problem and the use classification of the waterbody, and secondary factors such as stakeholder readiness, ecological importance of the waterbody and resident aquatic species, programmatic needs, and court orders. The State acknowledges that there are some TMDLs that are a high priority based on these factors, but are also complex TMDLs. In such cases, the development of TMDLs may take longer than that of simple, lower priority TMDLs that are begun after the high priority TMDL.

EPA reviewed the State's priority ranking of listed waters for TMDL development, and concludes that the State properly took into account the severity of pollution and the uses to be made of such waters, as well as other relevant factors.

EPA has found the waterbody prioritization used by Colorado as reasonable and sufficient for purposes of Section 303(d).

F. *Identification of the pollutants causing or expected to cause violation of the applicable water quality standards*. (§130.7(b)(4))

The State identified the pollutants causing or expected to cause violation of the applicable water quality standards, including those pollutants that have no corresponding numeric standard in the State standards (e.g. sediment). The State's identification of the relevant pollutants is found on the §303(d) list.

EPA concludes that the State has appropriately identified pollutants causing or expected to cause exceedences of applicable water quality standards.

G. *Basis for Decision to Add Waters to Colorado's 2004 §303(d) List*.

The following provides the basis for EPA's disapproval of Colorado's decision to not list several waterbody/pollutant combinations on its year 2004 §303(d) list and identifies those waterbody/pollutant combinations with accompanying priority rankings for inclusion on the State's list.

Based on EPA's review of the final list submission as well as comments it received on its proposal to add several waters to the list, EPA determined certain waters were improperly excluded from the State's list which were not meeting applicable water quality standards. The definition of "applicable water quality standards" for purposes of §303(d) listing includes numeric criteria, narrative criteria, waterbody uses (e.g., designated uses), and antidegradation requirements. (See 40 CFR 130.7(b)(3).)

The waters identified by EPA for addition to the State's list are given in Table 1 below. The table also identifies which of the applicable water quality standards (i.e., numeric criteria, narrative criteria, waterbody uses, and/or antidegradation requirements) are not being met as well

as the pollutants that are most likely contributing to standards impairment, and the priority ranking for each of the waters.

Table 1. Waterbodies, pollutants, and priority rankings to be added to Colorado's Section 303(d) waterbody list.

Waterbody	Pollutant(s)	Water Quality Standard Not Met	Priority Ranking
Red Mountain Creek (Red Mountain Creek from East Fork of Red Mountain Creek to Uncompahgre River) Segment COGUUN06b	copper, lead, zinc	aquatic life use	low
Bear Creek (Bear Creek from Evergreen Lake to Harriman Ditch) Segment COSPBE01	temperature*	aquatic life use	low

* Ammonia has also been identified as a pollutant contributing to the impairment of aquatic life use. Although there is a reasonable potential that exists for exceedences of the ammonia standard, EPA has approved a TMDL for ammonia in Bear Creek.

EPA believes the waterbodies listed in Table 1 qualify as water quality-limited segments ("WQLSs") where it is known that water quality does not meet applicable water quality standards or is not expected to meet applicable water quality standards, even after the application of the technology-based effluent limitations required by sections 301(b)(1)(A) and (B) of the Clean Water Act. As such, these waters will be included on the State's year 2004 list of WQLSs in need of TMDLs.

The basis for adding individual waters and pollutants and the basis for assigning the corresponding priority rankings are discussed below for each water to be added to the list.

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Red Mountain Creek/copper, lead, zinc/low priority
(Segment COGUUN06b; Red Mountain Creek mainstem from East Fork of Red Mountain Creek to Uncompahgre River)

Water Quality Standard Exceeded
This segment of Red Mountain Creek is classified for cold water aquatic life, recreation, and agriculture uses. This segment suffers from the impacts of historical mining in the watershed and toxic levels of metals entering the Creek. Although this segment has

applicable use classifications and narrative standards assigned to it, it has numeric standards only for pathogens. The State may propose site-specific numeric standards for other pollutants including standards for metals. As present, there are no EPA-approved numeric metals standards in place to use as a basis for determining compliance with numeric standards. A determination of compliance with standards can be made, however, by evaluating whether the designated use is being met.

In evaluating a waterbody's compliance with its designated aquatic life use the Division generally considers impairment of uses to be demonstrated when either the physical/habitat data or biological community metrics reflect a condition that is significantly less than the "expected,"[2] or reference conditions. The State has not established the expected biological condition for Red Mountain Creek to describe acceptable levels of aquatic life. In its final determination, the Commission concluded the "expected condition" could not be determined for Red Mountain Creek at this time, therefore there was no basis to conclude standards were not being achieved and thus no basis for listing the waterbody.

Although the expected condition for Red Mountain Creek has not been established by the State, EPA believes that the Creek is not currently fully attaining its aquatic life designated use, based on the fact that the Creek is nearly void of aquatic life except for certain metals-tolerant macroinvertebrates (see discussion below regarding macroinvertebrate information.)

The biological, physical, and chemical condition of Red Mountain Creek has been studied by the State, and data demonstrate the degree of poor water quality and poor biology found in this stream. In particular, the conditions in segment 6b can be contrasted with those found in the upstream segment 6a. Data have been presented to the Commission in testimony by the Water Quality Control Division that characterize conditions in both segments of Red Mountain Creek. Macroinvertebrate data and information presented by the Water Quality Control Division in Exhibits 5, 8, and 12 of the May 31, 2001 Rebuttal

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[2] In determining impairment of aquatic life uses, the State Listing Methodology states that "*For aquatic life uses, as previously referenced, the Division will generally consider impairment of narrative standards and classified uses to be demonstrated when either the physical/habitat data or biological community metrics reflect a condition that is significantly less than the expected or reference conditions*." The concepts of "expected condition" and "reference condition" are used to describe and assess the condition of aquatic life. The "reference condition" of a waterbody is usually determined by observing the conditions in a similar waterbody that is pristine or minimally impacted by anthropogenic effects. The "expected condition" would be established using conditions that may be less than pristine conditions that could reflect legacy conditions within a watershed or dominant land and water use activities reasonably preventing the attainment of pristine conditions. The State uses the "expected condition" to describe a waterbody's full potential with respect to aquatic life use. As such, the "expected condition" is used by the State, in part, to determine whether an aquatic life use is impaired for a particular waterbody.

Statement of the Water Quality Control Division for the Revisions to the Classifications and Numeric Standards for the Gunnison and Lower Dolores River Basins (Regulation No.35) in preparation for the July 2001 water quality standards hearing were used, in part, to understand the degree of impact in segment 6b. These exhibits characterize this segment as limited in its support of aquatic life due to influences from past mining activities (Page 8, Exhibit 8).

Comparing the macroinvertebrate community data presented by the Division for the upstream segment (mainstem of Red Mountain Creek from the source to immediately above the confluence with the East Fork of Red Mountain Creek; segment COGUUN06a) with the data in the downstream segment 6b shows a dramatic loss in the number of macroinvertebrates (greater than 90%) as well as a near complete loss of all metal-intolerant species in the downstream segment. (See the macroinvertebrate data in the Division's Exhibit 5 of the attached Exhibit B.) The biological data provided in the Division's Exhibit 5 clearly show that the biological health in the mainstem of Red Mountain Creek, from immediately above the confluence with the East Fork of Red Mountain Creek to the confluence with the Uncompahgre River, is significantly less than the upstream segment using multiple biological metrics. While EPA does not intend to establish segment 6a as the "reference condition" or "expected condition" for segment 6b, the dramatic void of any significant biological activity in segment 6b provides an overwhelming basis to conclude the waterbody is not attaining its aquatic life use.

The biological information provided in the Division's Exhibits 5 and 8 not only demonstrates poor biological health of segment 6b, but it reveals the major cause as well. The loss of metal-intolerant species shows that the poor condition is due, in part, to excess metals. The water chemistry data for copper, lead, and zinc very strongly support this conclusion. As reported in the Division's Exhibit 8 used in the July 2001 hearing, the 85th percentile of dissolved concentrations found in data collected by the Division were reported as 1,700 ug/l (zinc), 1,300 ug/l (copper), and 72 ug/l lead. This is in contrast with the data reported by the Division in the same exhibit for the upstream segment of Red Mountain Creek showing 12 ug/l, 0 ug/l, and 0 ug/l of zinc, copper, and lead, respectively. To put the high metals concentrations in segment 6b in perspective, acutely toxic thresholds for aquatic life criteria for zinc, copper and lead are 117 ug/l, 13 ug/l, and 65 ug/l, respectively, at a hardness of 100 mg/l $CaCO_3$. (See Table III Metal Parameters in The Basic Standards and Methodologies for Surface Water (5 CCR 1002-31; Regulation No. 31); Colorado Department of Health and Environment; Water Quality Control Commission; effective September 30, 2001.)

EPA notes that Red Mountain Creek has most likely not achieved its full designated use since there are ongoing and future restoration efforts in the watershed. After reviewing the restoration progress made to date on Red Mountain Creek and reviewing the restoration efforts planned in the future (some of which are linked to judicial consent decree provisions), EPA concluded that it is reasonable to believe the water quality and likewise, to some degree, the biological condition will improve over present conditions.

■ There are more remediation projects planned for the watershed that are designed to improve water quality in Red Mountain Creek. These activities include:

Idarado Mining Company Activities

. The initial attempt to control a draining adit in the Genessee area (on Baumgartner Oil Company land) was not successful so the Company has submitted a proposal for additional remediation of this discharge.

. A recent plan was submitted to the Hazardous Materials and Waste Management Division (Colorado Department of Public Health and Environment) which included proposed controls on seeps from Red Mountain Pile #2 and Red Mountain Buried Tailings which flow directly into Red Mountain Creek.

. Additional stabilization of tailings has started on Idarado land as part of background remediation.

US Forest Service Activities

. Plans to stabilize mine wastes near Ironton Park alongside Red Mountain Creek.

. Controls on draining adit being considered in preliminary assessment of Silver Mountain area.

. Controls are being implemented in Lower McAntire Gulch addressing a draining adit and mine waste piles.

■ The water quality performance standards included in a 1992 consent decree (See State of Colorado *v*. Idarado Mining Company, *et. al.*, *v.* Baumgartner Oil Company, *et. al.*, Civil Action No. 83-C-2385 (D. Colo.)) have yet to be achieved, and the parties to that decree are still working to meet those standards.

Consent Decree Performance Objectives

. Water quality performance objectives as outlined in a 1992 consent decree in the Red Mountain watershed have not been met to date. One of the objectives is to decrease the average dissolved zinc concentration to 1,500 ug/l[3]. Current quality is at 1,760 ug/l with an 85 percentile concentration of 2,430 ug/l. According to the consent decree, if the water quality does not show a trend in improvement during a 5-year compliance period or the performance objectives are not met, Idarado must submit proposals for additional remedial activities to meet the objectives.

[3] The consent decree defines a performance objective of dissolved zinc concentration to be met at a certain stream station in Red Mountain Creek. The objective is 1.25 ppm (or, 1,250 ug/l) multiplied by a factor of 1.2 or, 1.5 ppm. This objective is an average value based on six samples to be collected between August 15 and October 15 on six separate days. Further, the samples need to be collected under certain flow conditions.

Pollutant(s) Causing Impairment
The pollutants contributing to the impairment include copper, lead, and zinc.

Priority
It would be appropriate to assign this water a low priority for TMDL development to 1) allow the State's standard-setting process for Red Mountain to come to fruition 2) allow the remediation efforts to take effect.

Bear Creek/temperature/low priority
(Segment COSPBE01; Evergreen Lake to Harriman Ditch)

Water Quality Standard Exceeded
This segment is classified for cold water aquatic life, recreation, water supply, and agriculture uses. EPA believes this waterbody does not currently meet all applicable water quality standards. In particular, the Creek's aquatic life use classification is not being fully met. The Water Quality Control Division reports that biological data from Bear Creek reveal overwhelming evidence of aquatic life use impairment (*"departure from the expected condition*.") The Division used this information, in part, in its final recommendation to the Commission that Bear Creek be included on the State's §303(d) list. (See Rebuttal Statement of the Water Quality Control Division in the Matter of the 2004 List of Water-Quality-Limited Segments Requiring Total Maximum Daily Loads (Regulation No. 93), and 2004 Monitoring and Evaluation List (Regulation No.94)(February 25, 2004)("Division's Rebuttal Statement). Further, the Colorado Division of Wildlife agreed with the proposal to list Bear Creek based on the fishery data and the interpretation of the expected condition[4] for the Creek. (See Rebuttal Statement of the Colorado Division of Wildlife in the Matter of the 2004 List of Water Quality Limited Segments Requireing (sic) Total Maximum Daily Loads (Regulation No.93) and 2004 Moniotoirng (sic) and Evaluation List (Regulation No. 94)(February 25, 2004) ("CDOW's Rebuttal Statement").

A long and extensive record of biological data, including fishery data, were used to determine that the aquatic life use standard was not being met. These data included length-frequency, presence-absence, population estimates, and fish kill reports (observational and formally documented reports) used by the Division to conclude that there exists a depressed aquatic life community in this segment even after the conclusion

[4] The State's methodology for listing waters on its §303(d) list provides for the listing of waters based on biological assessment data. According to the Listing Methodology, biological assessments will typically consider measurable conditions or features within an affected segment in comparison to an "expected condition." For aquatic life uses, impairment is demonstrated when the biological community metrics reflect a condition that is significantly less than the expected or reference condition.

of a drought period[5]. (See Exhibit 3 in the Division's Prehearing Statement.) Although post-drought flows rebounded to normal levels throughout the watershed, aquatic life in the segment being listed did not show signs of substantial recovery in its upper reaches according to the Water Quality Control Division and the Division of Wildlife. This is in contrast to downstream locations where aquatic life showed signs of substantial recovery. In particular, the length-frequency information revealed a near complete absence of adult trout in the impaired reach compared to the downstream reach and compared to previous years. This demonstrates that, even though there were adequate flows to sustain a fishery in both the pre- and post-drought years, the aquatic life use was unable to be met during those years. The data and information show that pollutants have a direct and convincing link to the impairment.

In addition to the biological data on Bear Creek, testimony presented to the Commission included a lengthy and detailed record of temperature readings in Bear Creek. In particular, Trout Unlimited provided a record of temperature including data showing hourly, daily, and seasonal patterns.

The Commission was unconvinced that the aquatic life use impairment in this segment would not have occurred except for the drought experienced in recent years. In particular, the Commission believed that any elevated temperatures or harmful levels of ammonia would not have been present except for the antecedent drought conditions.

EPA concludes that there is sufficient evidence to show, even under post drought conditions, there are portions of Bear Creek that remain impaired and continue to fail to support its aquatic life use. As such, Bear Creek should be included on the State's §303(d) list for aquatic life use impairment.

Pollutant(s) Causing Impairment

In EPA's 2004 Listing Guidance, the Agency indicates States should list a water when it is impaired or threatened in relation to biological assessments used to evaluate aquatic life uses, even if the specific pollutant contributing to the impairment or threat is not known. Further, the waters identified as impaired or threatened relative to biological criteria should be listed unless it is known that a pollutant is not causing the impairment.

In the case of Bear Creek, there is evidence through biological assessments that the aquatic life use is impaired. Further, it has been shown that pollutants cause the impairment, independent of flow regime (flow being a "non-pollutant" stressor). Data indicate that the aquatic life impairment has been caused, in part, by high in-stream temperatures and ammonia concentrations that were at levels that could cause or contribute to the impairment. (High in-stream temperatures, or heat, caused by solar radiation is also considered a "pollutant.")

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[5] Drought conditions mentioned in this document are considered to result in in-stream flows that are less than the 1-in-3 year recurrence flows.

Temperature values were compared against numeric standards adopted by the State and approved by EPA, although the standards have yet to be specifically applied through rulemaking to Bear Creek and neither has the State adopted an implementation procedure for the temperature standard. (See The Basic Standards and Methodologies for Surface Water (5 CCR 1002-31; Regulation No. 31); Colorado Department of Health and Environment; Water Quality Control Commission; effective September 30, 2001.)

Ambient data supplied by Trout Unlimited and other parties provide an extensive record of hourly, daily, and weekly temperature values exceeding the 20ºC criteria for cold water fish (See Prehearing Statement of Trout Unlimited in the Matter of Rulemaking Hearing to Establish Colorado's 2004 List of Water Quality Limited Segments Still Requiring TMDL's, 5 CCR-1002-93, and the Monitoring and Evaluation List, 5 CCR 1002-94 (February 3, 2004).)

Although there are no numeric standards specifically promulgated for Bear Creek, the cold water class 1 classification has been established by the State for the Creek and approved by EPA. The cold water class 1 classification is applied to waters that are capable of sustaining a wide variety of cold water biota (5 CCR 1002-31 Part 31.13(1)(c)(I).) "Cold water biota" is defined by the State in its standards as aquatic life, including trout, normally found in waters where the summer temperature does not often exceed 20^0 C. (5 CCR 1002-31 Part 31.5(8).) Biological data for Bear Creek show that the aquatic life use was still impaired during periods of non-drought flows and temperatures above the 20^0 C threshold. (See Rebuttal statements of the Water Quality Control Division, the Colorado Division of Wildlife, and Trout Unlimited.)

Modeled and observed ambient ammonia concentrations were compared to EPA-approved numeric standards established by the State to conclude there were exceedences of numeric standards (although the observed values were during a time of drought). Exceedences above the State acute ammonia numeric standard have occurred. According to a State investigative report on the July 1, 2002 fish kill in the Creek, the ambient concentrations of ammonia were over twice the acute numeric standard. (See August 21, 2002 Colorado Department of Public Health and Environment Water memorandum cited below in section I.) The report concludes that ammonia toxicity was the most likely cause of the fish kill below the wastewater treatment facility servicing the Evergreen Metropolitan District. It should be noted that the fish kill and high ammonia concentrations were observed during a period of drought. It should also be noted that the Division believed that there was sufficient flow present in Bear Creek to provide adequate habitat for trout even during the period of drought because of the effluent flows from the wastewater treatment plants thus linking the fish kills primarily to pollutant problems rather than flow problems. (See the Division's Rebuttal Statement.)

EPA has already approved a TMDL that addresses ammonia toxicity in Bear Creek. As such, Bear Creek will not be identified as a water quality-limited segment in need of an

ammonia TMDL at this time. EPA recommends, however, that due to the apparent role of ammonia toxicity in the Bear Creek impairment, the State should determine whether the ammonia TMDL is being fully implemented in all discharge permits and the State consider updating the TMDL with more recent data.

Priority

Although the impairment issues of Bear Creek are significant, it is also evident that further field monitoring is needed to gather more details of the biological impairment, investigate the cause of high ambient temperatures, and allow time to gather any other relevant information (e.g., pH, ammonia decay rates, seasonal amplitudes of daily pH and temperature) to support TMDL development. For the above reasons, this waterbody has been assigned a low priority for TMDL development.

Further monitoring could help determine the cumulative effect of point source discharges, nonpoint source discharges, and physical condition of the stream as well as the biological health as it relates to the extent and persistence of non-drought impairments. EPA recommends a low priority to allow additional ambient data to be collected to support further refinement, if needed, of the TMDL currently in place for ammonia in Bear Creek.

H. *Basis for Decision to Exclude Waters Originally Proposed for Addition to Colorado's 2004 §303(d) List*

In correspondence dated July 26, 2004, EPA partially approved and partially disapproved the State's year 2004 §303(d) waterbody list. In its disapproval action, the Agency identified six waters and corresponding pollutants to be added to the State's list and one pollutant to be added for a water already on the State's list. After careful review of comments received on the disapproval action, EPA concludes that the waters and pollutants identified in table 2 do not warrant addition to the State's list. The following provides a waterbody-by-waterbody rationale for why EPA now believes these waters should not be included on the State's §303(d) list.

Table 2. Waterbodies and pollutants originally proposed for addition to Colorado's Section 303(d) waterbody list but will now be excluded.

Waterbody	Pollutant(s) for Which Waterbody Originally Proposed for §303(d) Listing
West Fork of Clear Creek (W. Fork of Clear Creek from Woods Creek to Clear Cr. mainstem) Segment COSPCL05	zinc
Middle South Platte River (South Platte River from Big Dry Creek to Highway 60) Segment COSPMS01	dissolved oxygen
Blue River Tributaries (Camp Creek, Jones Gulch) Segment COUCBL06	pH
Blue River Tributaries (Keystone Gulch, Mozart Creek) Segment COUCBL08	pH
Dolores River (Dolores R. below McPhee Reservoir to Bradfield Ranch Bridge) Segment COSJDO04	unknown

West Fork of Clear Creek/zinc/low priority
(Segment COSPCL05; West Fork of Clear Creek from Woods Creek to Clear Creek)

This water was originally proposed for addition to the State's §303(d) list because of exceedences of the acute zinc standard. Since then, the Commission has relaxed the standards through adoption of site-specific zinc standards and EPA has approved those standards in correspondence dated December 21, 2004. The current water quality meets the new standards, so it is now concluded that the waterbody is no longer impaired for purposes of §303(d) listing.

Middle South Platte River/dissolved oxygen/low priority
(Segment COSPMS01; South Platte River from Big Dry Creek to Highway 60)

This water was originally proposed for addition to the State's §303(d) list because of exceedences of the dissolved oxygen standard. Since then, the Commission has relaxed the standard through adoption of a site-specific dissolved oxygen standard and EPA has approved those standards in correspondence dated December 21, 2004. The current water quality meets the new standards, so it is now concluded that the waterbody is no longer impaired for purposes of §303(d) listing.

Blue River Tributaries (2 segments)/pH/low priority
(Segment COUCBL06; Camp Creek, Jones Gulch and Segment COUCBL08; Keystone Gulch, Mozart Creek)

These segments were originally proposed for addition to the State's list based on exceedence of pH standards. In comments received by EPA, it was noted that State water quality standards, as approved by EPA, allow for excursions from standards due to natural conditions such as spring runoff[6]. There is persuasive evidence at this time that the pH excursions reported in the data are of a natural consequence (including during periods of snowmelt) and, as such, do not constitute an exceedence of state standards for purposes of §303(d) listing.

Evidence that the pH excursions below standards were caused by natural phenomenon and not by man-induced pollution or the introduction of pollutants was presented to the Commission in prehearing and rebuttal testimony supplied by Keystone Resort[7].

Dolores River/sediment, temperature, nutrients/low priority
(Segment COSJDO04; Dolores River below McPhee Reservoir to Bradfield Ranch Bridge)

This segment of the Dolores River was proposed for addition to the State's list based on failure to meet its aquatic life use. It was originally thought that the biological data as presented showed a depressed aquatic life community during non-drought flows including in year 2001 when the flows below McPhee Reservoir were commensurate with non-drought year low flows.

After careful consideration of the comments received, EPA now concludes that lack of full flow regime has resulted in the drop in fish population. In particular, the variation in

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[6] The following provides an excerpt from Colorado's water quality standards pertaining to exceedences due to natural conditions (bold typeface added)

Part 31.7(1)(b) Numeric Standards
A numeric standard may be assigned by the Commission either to apply on a statewide basis or to specific state surface waters. A numeric standard will be assigned by the Commission when it is presented with evidence that a particular numeric level for a parameter is the suitable limit for protecting the classified use. A numeric standard consists of a numeric level and may include a description as to how that numeric level is to be measured. Numeric standards will include appropriate averaging periods and appropriate frequencies of allowed excursions. ***A numeric standard may be exceeded due to temporary natural conditions such as unusual precipitation patterns, spring runoff or drought****. Such uncontrollable conditions are not cause for changing the numeric standard. (Emphasis added.) (Ref. The Basic Standards and Methodologies for Surface Water (5 CCR 1002-31) Regulation No. 31; Colorado Department of Public Health and Environment; Water Quality Control Commission; Effective October 30, 2001)*

[7] See both the Responsive Prehearing Statement (February 3, 2004) and Rebuttal Statement (February 25, 2004) of Keystone Resort in the Matter of Water Quality Limited Segments Requiring Total Maximum Daily Loads, Regulation #93 (5 CCR 1002-93).

fishery health is related to both the low flows as well as the high, flushing flows occurring in any particular year. The correlation between fishery health and years with high flows accompanied by adequate minimum flows is shown in Figure 1. (Figure 1 provides information on brown trout since that population is not influenced by State stocking programs such as the rainbow trout program. Brown trout naturally reproduce in the Dolores River.) In years where there are high "flushing" flows as well as a good baseflow (years 1993 through 2000), the population is well supported. In years without the full regime the fishery suffers. This indicates that the full flow regime (i.e., combination of all flow levels) has a pronounced effect on the fishery health. Is also demonstrates that nonpollutant stressors result in the impairment found in the Dolores River.

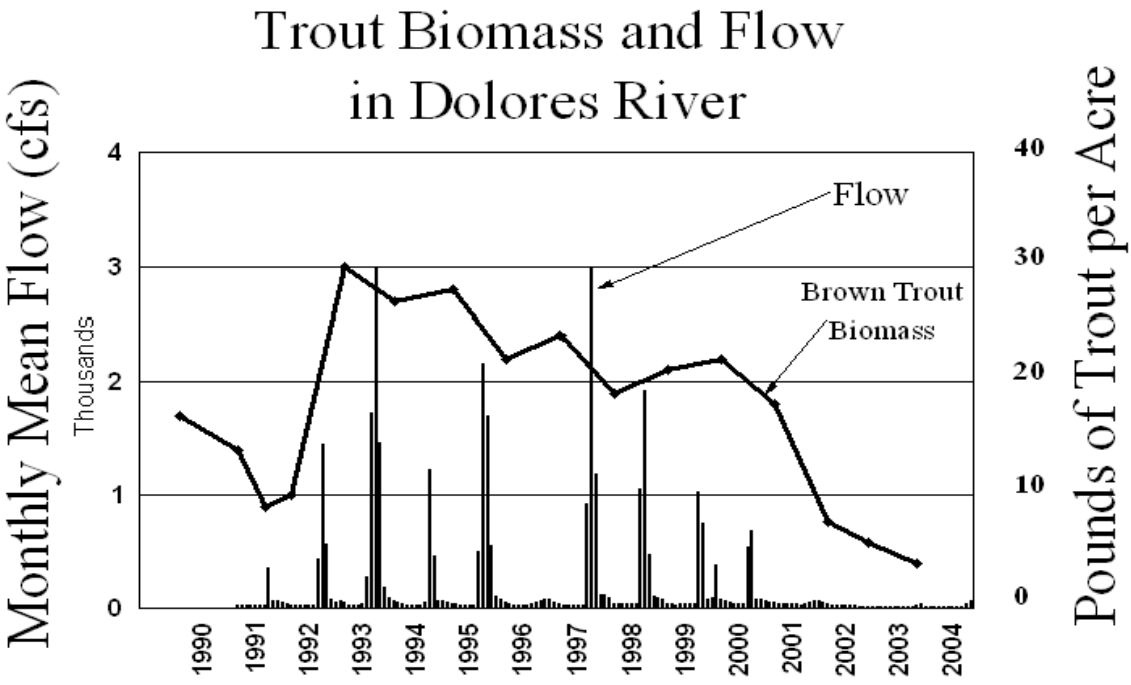

Figure 1. Graph showing trend of brown trout biomass (pounds of trout per acre) for the Dolores River. Trout data are average values from three stations using two-pass Seber-Le Cren estimates for trout ≥6 inches in length (Colorado Division of Wildlife, unpublished data). Flow data are monthly average values as reported for station DOLBMCCO below McPhee Reservoir (Colorado Division of Water Resources).

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EPA also acknowledges that, in its July 2004 letter, it focused on data from 1995 to present. Today, the Agency provides conclusions that are based on a broader view of the data, including flow and fishery data starting in 1990. The Agency also inspected the pattern and frequency of high flows as well as low flows for the Dolores River.

In the EPA's July 2004 disapproval letter, Region VIII stated that "It is not clear to what extent each of the stressors including temperature contribute to the impairment, but it is most likely that a pollutant or pollutants contribute to the impairment.[8]" Further inspection of the data and information as well as review of the comments received by EPA since July 26, 2004 show that flow regime and not pollutants is directly and convincingly correlated with fishery populations. There were times during which water temperatures of the Dolores River were slightly above 20^0 C during non-drought years, but there is no convincing evidence that such excursions have caused impairment of the aquatic life use. Because it appears that flow (a "non-pollutant") is the limiting stressor on the fishery, the Dolores River is not required to be included on the §303(d) list because EPA regulations only require waters impaired or threatened due to pollutants to be listed.

Temperature data for the Dolores River are not as thorough or detailed as that found in the Bear Creek dataset (a water being added to the State's §303(d) list). For example, the temperature data for the Dolores are based on grab samples whereas data for Bear Creek provide a detailed, hourly account of temperature patterns. Also, the temperature data for Bear Creek cover a longer period of time. Because of this, a clearer understanding can be obtained regarding the detailed patterns of temperature in Bear Creek than the Dolores River, providing a more robust dataset upon which to make impairment decisions.

Further, it has been shown that the aquatic life use in Bear Creek was impaired prior to the 2002 drought and continued to be impaired even with the return of adequate flows in 2003. In contrast, the health of aquatic life in the Dolores appears to be directly dependent on flow[9].

Conflicting testimony regarding the role of pollutants (e.g., temperature, nutrients, and sediment) has been presented. For example, Trout Unlimited mentioned the need to focus on all "parts of the picture" including pollutants and flow to evaluate the impaired fishery of the Dolores River[10]. In contrast, the Dolores Water Conservancy District interprets the same data and information to show that fish populations increase even in the face of temperature, algae, and sediment problems[11]. Finally, the Colorado Division

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[8] See page 23 of Enclosure 2 of EPA's July 26, 2004 letter to Chris J. Wiant, Chair, Water Quality Control Commission from Max H. Dodson, Assistant Regional Administrator, US EPA Region VIII.

[9] EPA performed simple regression analyses on flow regime vs. biomass for both Bear Creek and the Dolores River using existing and readily available data and information. It was observed that the fluctuations in biological indicators in Bear Creek were poorly correlated with flow whereas the same analysis for the Dolores River showed much stronger correlations.

[10] See page 4 of the September 17, 2004 letter from Melinda Kassen and David Nickum of Trout Unlimited to Kathryn Hernandez, US EPA, Region VIII.

[11] See September 1, 2004 letter from Phillip C. Saletta, Dolores Conservancy District to Kathryn Hernandez, US EPA, Region VIII.

of Wildlife, whose temperature and fishery data form the basis for the conclusions being offered by the various parities, concludes that, even with the problems associated with high water temperatures, algae, and sediment, the Dolores River should not be considered impaired for purposes of Section 303(d)[12]. Outside of the effects which occurred during drought flows in 2002 and 2003, the degree of impact on the fishery due to pollutants (including temperature) has not been shown to be direct or convincing. Further, much of the information was anecdotal with little or no data quantifying such pollutants as nutrients and sediment.

Again, EPA concludes that the current data and information pertaining to the Dolores River show that flow regime is the most significant factor in affecting fishery populations. There has not been a clear and convincing link between pollutants and the impaired condition of the Dolores River. The data regarding the presence of pollutants in the River is insufficient to conclude that the impairment is caused by pollutants. As such, the River should not be included on the State's Section 303(d) list.

EPA acknowledges that there are ongoing efforts to address the aquatic habitat needs as well as obtain information about other factors that contribute to the observed fishery decline in the Dolores River. For example, the Colorado Division of Wildlife has participated in habitat restoration efforts, in part, "...to re-establish a river morphology appropriate for the modified flow regime [of the Dolores River] that will improve degraded aquatic and riparian habitats and restore natural river processes."[13] Further sampling of the fish population in 2005 by the Division of Wildlife should provide further insight on the relation between flow and the fishery since the year 2005 flows are anticipated as being a "full" flow regime as experienced in a normal year.

EPA highly recommends that such efforts continue and that the State Water Quality Control Division, in conjunction with all the stakeholders, continue efforts to identify the "expected condition" for aquatic life that could occur in response to the restoration efforts. The Water Quality Control Division has identified several steps that could be taken to address the issues related to the Dolores River including:

- defining appropriate methodologies to assess the water's aquatic life use;
- characterization of physical habitat conditions;
- further collection of fish population data and macroinvertebrate data;
- definition of "expected conditions" corresponding to the trout populations and full flow regime;
- further investigation on linkage between temperature regime and trout populations.

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[12] See pages 3 and 7 of the February 25, 2004 Rebuttal Statement of the Colorado Division of Wildlife in the Matter of the 2004 List of Water Quality Limited Segments Requiring (sic) Total Maximum Daily Loads (Regulation No.93) and 2004 Moniotoirng (sic) and Evaluation List (Regulation No. 94).

[13] See on the Division of Wildlife's web site at **http://wildlife.state.co.us/habitat/dolores_project/** a description of the Dolores River habitat improvement efforts (this portion of the Division's site last updated on June 9, 2004).

I. *Documents used in review of Colorado's §303(d) waterbody submittal*

The following list of documents was used directly or indirectly as a basis for EPA's review of the State's §303(d) waterbody list. This list is not meant to be an exhaustive list of all records reviewed, but to provide the primary documents the Region relied upon in making its decisions to approve the State's list. EPA consulted all the prehearing and rebuttal statements submitted to the Commission in reference to its deliberations in the matter of the 2004 List of Water-Quality-Limited Segments Requiring Total Maximum Daily Loads (Regulation No. 93,) and 2004 Monitoring and Evaluation List (Regulation No. 94.)

December 28, 1978 Federal Register Notice, *Total Maximum Daily Loads Under Clean Water Act,* finalizing EPA's identification of pollutants suitable for TMDL calculations, 43 Fed. Reg. 60662

January 11, 1985 Federal Register Notice, *40 C.F.R. Parts 35 and 130, Water Quality Planning and Management: Final Rule*, 50 Fed. Reg. 1774

April 1991, "Guidance for Water Quality-Based Decisions: The TMDL Process," EPA 440/4-91-001.

July 24, 1992 Federal Register Notice, *40 C.F.R. Parts 122, 123, 130,* revision of regulation, 57 Fed. Reg. 33040

August 8, 1997 memorandum from Robert Perciasepe, Assistant Administrator, Office of Water, to Regional Administrators and Regional Water Division Directors entitled "New Policies for Establishing and Implementing TMDLs."

40 C.F.R. Part 130 Water Quality Planning and Management

May 23, 1997 memorandum from Geoffrey H. Grubbs, Director, Assessment and Watershed Protection Division, Headquarters, US EPA to FACA Workgroup on Section 303(d) Listing Criteria, regarding "Nonpoint Sources and Section 303(d) Listing Requirements."

September, 1997 guidance from Office of Water, Headquarters, US EPA regarding Guidelines for Preparation of the Comprehensive State Water Quality Assessments (305(b) Reports) and Electronic Updates: Supplement, EPA-841-B-97-002B.

May 31, 2001 exhibits 5,8, and 12 of the Rebuttal Statement of the Water Quality Control Division for the Revisions to the Classifications and Numeric Standards for the Gunnison and Lower Dolores River Basins (Regulation No.35).

September 30, 2001 (last amended) The Basic Standards and Methodologies for Surface Water 3.1.0 (5CCR 1002-31); Colorado Department of Public Health and Environment, Water Quality Control Commission.

August 21, 2002 memorandum from Bob McConnell and Joni R. Nuttle (Colorado Water Quality Control Division) to Scott Klarich, Cary Pilon, and Ron Falco (Colorado Water Quality Control Division, regarding "Bear Creek."

July 21, 2003 guidance from the Office of Water entitled Guidance for 2004 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act, Watershed Branch, Assessment and Watershed Protection Division, Office of Wetlands, Oceans, and Watersheds, US EPA.

September 9, 2003 report entitled Colorado's Section 303 (d) Listing Methodology published by the Colorado Department of Public Health and Environment.

April 2004 305(b) report entitled Status of Water Quality in Colorado - 2004 published by the Colorado Department of Public Health and Environment.

February 3, 2004 Prehearing Statement of the Water Quality Control Division in the Matter of the 2004 List of Water-Quality-Limited Segments Requiring Total Maximum Daily Loads (Regulation No. 93, and 2004 Monitoring and Evaluation List (Regulation No. 94).

February 3, 2004 Prehearing Statement of Trout Unlimited in the Matter of Rulemaking Hearing to Establish Colorado's 2004 List of Water Quality Limited Segments Still Requiring TMDL's, 5 CCR-1002-93, and the Monitoring and Evaluation List, 5 CCR 1002-94.

February 25, 2004 Rebuttal Statement of the Colorado Division of Wildlife in the Matter of the 2004 List of Water Quality Limited Segments Requiring (sic) Total Maximum Daily Loads (Regulation No.93) and 2004 Moniotoirng (sic) and Evaluation List (Regulation No. 94).

February 25, 2004 Rebuttal Statement of the Water Quality Control Division in the Matter of the 2004 List of Water-Quality-Limited Segments Requiring Total Maximum Daily Loads (Regulation No. 93, and 2004 Monitoring and Evaluation List (Regulation No. 94).

March 1, 2004 letter from Paul D. Frohardt, Administrator, Colorado Water Quality Control Commission to Max Dodson, Assistant Regional Administrator for the Office of Ecosystems Protection and Remediation, US EPA Region VIII transmitting Colorado's 2002 Section 303(d) List and Colorado's 2002 Monitoring and Evaluation List.

March 17, 2004 letter from Chris J. Wiant, Chair, Colorado Water Quality Control Commission to Max Dodson, Assistant Regional Administrator for the Office of Ecosystems Protection and Remediation, US EPA Region VIII transmitting Colorado's 2004 Section 303(d) List.

March 17, 2004 regulation entitled "Regulation #93 2004 Section 303(d) List Water-Quality-Limited Segments Requiring TMDLs" adopted March 17, 2004, Effective May 31, 2004; Colorado Department of Public Health and Environment; Water Quality Control Commission.

March 17, 2004 regulation entitled “Regulation #94 Colorado’s Monitoring and Evaluation List” adopted March 17, 2004, Effective May 31, 2004; Colorado Department of Public Health and Environment; Water Quality Control Commission.

December 21, 2004 letter from Robert E. Roberts, Regional Administrator, US EPA Region VIII to Chris Wiant, Chair of Colorado Water Quality Control Commission regarding EPA Action on Revisions to the Water Quality Standards for the South Platte River Basin, Laramie River Basin, Republican River Basin, Smoky Hill River Basin.